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EXAMINER	
VU, BAI D	

ART UNIT	PAPER NUMBER
2165	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/576,009	GIBBINS, NIGEL JAMES	
	Examiner	Art Unit	
	Bai D. Vu	2165	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 April 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *14 April 2006* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *4/14/06*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-20 are pending in this Office Action.

Oath/Declaration

2. The applicant's oath/declaration has been reviewed by the examiner and is found to conform to the requirements prescribed in **37 C.F.R. 1.63**.

Priority

3. As required by M.P.E.P. 201.14(c), acknowledgement is made of applicant's claim for priority based on Foreign Application GB 0324071.0 filed on October 14, 2003.

Drawings

4. A descriptive textual label for each numbered element in these figures would be needed to fully and better understand these figures without substantial analysis of the detailed specification. Any structural detail that is of sufficient importance to be described should be shown in the drawing. Optionally, applicant may wish to include a table next to the present figure to fulfill this requirement. See 37 CFR 1.83. 37 CFR 1.84(n)(o) is recited below:

(n) Symbols. Graphical drawing symbols may be used for conventional elements when appropriate. The elements for which such symbols and labeled representations are used must be adequately identified in the specification. Known devices should be illustrated by symbols which have a universally recognized conventional meaning and are generally accepted in the art. Other symbols which are not universally recognized may be used, subject to approval by the Office, if they are not likely to be confused with existing conventional symbols, and if they are readily identifiable.

(o) Legends. Suitable descriptive legends may be used, or may be required by the Examiner, where necessary for understanding of the drawing, subject to approval by the Office. They should contain as few words as possible."

The drawings are objected to because some elements or boxes in FIG. 1 have no labeled. Thus, these elements do not give a viewer to fully understand without substantial analysis of detailed specification. Also, the drawing numbers (e.g., FIG. 3 and FIG. 5) do not appear in the drawings.

Claim Objections

5. Claims 5, 11 and 16 are objected to because of the following informalities:

In claim 5, the phrase "*A server*" should be replaced by "*The server*".

In claim 11, the claim depended on claim 9 is incorrect. Claim 11 should depend on claim 10.

In claim 16, the phrase "*The equipment monitoring system*" should be replaced by "*An equipment monitoring system*".

Claim 16 is objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependency to claims 1 and 12. See MPEP § 608.01(n). Accordingly, the claim 16 is not been further treated on the merits.

Appropriate correction is required.

Abstract

6. The abstract of the disclosure is objected to because it should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. Correction is required. See MPEP § 608.01(b).

Claim Rejections - 35 USC § 101

7. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

8. **Claims 18 and 20** are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

As per **claims 18 and 20** are computer program product claims; the claims lack the necessary physical articles or objects to constitute a machine or a manufacture within the meaning of 35 USC 101. They are clearly not a series of steps or acts to be a process nor are they a combination of chemical compounds to be a composition of matter. As such, they fail to fall within a statutory category. They are, at best, functional descriptive material *per se*.

Descriptive material can be characterized as either "functional descriptive material" or "nonfunctional descriptive material." Both types of "descriptive material" are nonstatutory when claimed as descriptive material *per se*, 33 F.3d at 1360, 31 USPQ2d at 1759. When functional descriptive material is recorded on some computer-readable medium, it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized. Compare *In re Lowry*, 32 F.3d 1579, 1583-84, 32 USPQ2d 1031, 1035 (Fed. Cir. 1994)

Merely claiming nonfunctional descriptive material, i.e., abstract ideas, stored on

a computer-readable medium, in a computer, or on an electromagnetic carrier signal, does not make it statutory. See Diehr, 450 U.S. at 185-86, 209 USPQ at 8 (noting that the claims for an algorithm in *Benson* were unpatentable as abstract ideas because "[t]he sole practical application of the algorithm was in connection with the programming of a general purpose computer.")

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10. **Claims 1-11, 17 and 18** are rejected under 35 U.S.C. 102(b) as being anticipated by Nixon et al. (US Pub No. 2002/0077711 A1).

As per **claim 1**, Nixon et al. discloses:

"a server for connecting to equipment to be monitored, the server having an internet protocol address and" as it will be noted that, while FIG. 3 illustrates the process control, the equipment monitoring and diagnostic, and the performance monitoring applications as being separate from the suite of applications 50, these specific applications could be part of or used by the suite of integration applications 50 if so desired. Further, while FIG. 3 illustrates data associated with one embodiment of a

plant 10, FIG. 3 is not meant to indicate physical locations of any of the applications within the suite of applications 50. Thus, any and all of the applications and hardware illustrated in FIG. 3 can be located at any desired places within the plant (or even away from the plant 10 if so desired) and these applications need not be located in the same place. Still further, the flow of data between data collectors and the data collection and distribution system 102 as well as between the data collection and distribution system 102 and the applications illustrated in FIG. 3 may occur over any desired network, such as a LAN or WAN, the Internet, any Intranet, etc. Data may be transported in any desired manner using any desired hardware including, for example, any physical medium, any dedicated or shared information transport method including without limit the use of wired, wireless, coaxial cable, telephone modem, fiber optic, optical, meteor burst, satellite, etc. devices. This communication may also use any desired protocol including without limit, Fieldbus, XML, TCP/IP, IEEE 802.3, blue tooth, X.25, X.400, protocols or any other protocol now known or developed in the future (paragraph [0076]).

"comprising a database for receiving and storing data from the equipment and" as the data collection and distribution system 102 will collect the data from the different data sources in a common format or will convert that data, once received, to a common format for storage and use later by other elements, devices or applications in the process control system. In one embodiment, the different data sources may use a data conversion protocol, such as OPC, PI, Fieldbus, etc. to communicate the data to the data collection and distribution system 102. Of course, the OPC or other conversion

interface may be stored in the data collection and distribution system 102 or in the data sources themselves. Further, if desired, any of the data sources may convert its data to a common format used by the data collection and distribution system 102 and communicate that converted data to the system 102. Of course, the data collection and distribution system 102 may convert the data sent by the different data sources to any common format or protocol and store and organize that data in a database in any desired manner. The data collection and distribution system 102 may receive the data from the different data sources in a periodic or aperiodic manner, continuously, or intermittently, synchronously or asynchronously, or at any desired time (paragraph [0054]) the data collection and distribution system referred as server including database storing data sent by the different data sources; and data sources referred as equipments.

"a feed for feeding data from the database to remote applications addressing the server" as once received and converted, the data is stored in a database in some accessible manner and is made available to applications or users within the asset management suite 50. For example, applications related to process control, alarming, device maintenance, fault diagnostics, predictive maintenance, financial planning, optimization, etc. may use, combine and integrate the data from one or more of the different data sources (paragraph [0055] lines 1- 8); and the computer 30 may also be connected via, for example, the bus 32, to a plantwide LAN 37, a corporate WAN 38 as well as to a computer system 40 that enables remote monitoring of or communication with the plant 10 from remote locations (paragraph [0039] lines 11- 15) wherein the

computer 30 referred as a server; a computer system 40 referred as a remote application; and a plant 10 referred as an equipment.

As per **claim 2**, Nixon et al. discloses "the server according to claim 1 wherein the feed is updated upon occurrence of events reported to the server from the equipment" as the web services 310 includes a series of web service listeners 314 which listen for or which subscribe to certain data from other data sources and provide this data to the subscribing applications. The subscribing applications may be associated with the applications within the ITS 302 or a process control system. The web listening services (which may be part of the data collection and distribution system 102) may listen for and redistribute alarms and events data, process condition monitoring data and equipment condition monitoring data (paragraph [0084] lines 1-10) wherein the data collection and distribution system 102 listening for alarms and events data from data sources referred as updated occurrence of events reported from equipments to server.

As per **claim 3**, Nixon et al. discloses "the server according to claim 1 wherein the feed is updated from the database at regular report intervals" as further, if desired, any of the data sources may convert its data to a common format used by the data collection and distribution system 102 and communicate that converted data to the system 102. Of course, the data collection and distribution system 102 may convert the data sent by the different data sources to any common format or protocol and store and

organize that data in a database in any desired manner. The data collection and distribution system 102 may receive the data from the different data sources in a periodic or aperiodic manner, continuously, or intermittently, synchronously or asynchronously, or at any desired time (paragraph [0054] lines 11-22).

As per **claim 4**, Nixon et al. discloses "the server according to claim 1 further comprising an active server page file or active components that interrogate(s) the database to create a dynamic file that is accessible from the remote applications" as FIGS. 5A and 5B depict one manner of organizing and storing data collected from numerous data sources in a configuration database in a manner that makes this data commonly available to other applications (paragraph [0019]); and at the server, if necessary, the data is encapsulated and mapped to a new XML wrapper, i.e., this data is mapped from one XML schema to one or more other XML schemas which are created for each of the receiving applications (paragraph [0040] lines 17-21).

As per **claim 5**, Nixon et al. discloses "a server according to claim 1 wherein the feed comprises an extensible mark-up language (XML) file containing item tags and wherein the data to be fed to remote applications is inserted into the item tags" as if the data collection and distribution system is located in the computer 30, it may receive data from the disparate sources of data, such as the controllers, equipment monitoring and financial applications separately using different data formats, or using a common format. In one embodiment, the communications over the bus 32 occur using the XML protocol.

Here, data from each of the computers 12A, 18, 14A, 22, 26, 35, 36, etc. is wrapped in an XML wrapper and is sent to an XML data server which may be located in, for example, the computer 30. Because XML is a descriptive language, the server can process any type of data. At the server, if necessary, the data is encapsulated and mapped to a new XML wrapper, i.e., this data is mapped from one XML schema to one or more other XML schemas which are created for each of the receiving applications (paragraph [0040] lines 7-21).

As per **claim 6**, Nixon et al. discloses "the server according to claim 5 wherein the XML file is structured as a Rich Site Summary (RSS) feed" at the server, if necessary, the data is encapsulated and mapped to a new XML wrapper, i.e., this data is mapped from one XML schema to one or more other XML schemas which are created for each of the receiving applications (paragraph [0040] lines 17-21) wherein XML wrapper referred as Rich Site Summary (RSS) feed that any of various XML file formats suitable for disseminating real-time information via subscription on the Internet. Also, RSS is the acronym used to describe the de facto standard for the syndication of web content. RSS is an XML-based format and while it can be used in different ways for content distribution, its most widespread usage is in distributing news headlines on the web. A Web site that wants to allow other sites to publish some of its content creates an RSS document and registers the document with an RSS publisher. A user that can read RSS-distributed content can use the content on a different site. Syndicated content can

include data such as news feeds, events listings, news stories, headlines, project updates, excerpts from discussion forums or even corporate information.

As per **claim 7**, Nixon et al. discloses "the server according to claim 5 wherein each item tag has a title part, a link part and a description part" as the web services 310 includes a series of web service listeners 314 which listen for or which subscribe to certain data from other data sources and provide this data to the subscribing applications. The subscribing applications may be associated with the applications within the ITS 302 or a process control system. The web listening services (which may be part of the data collection and distribution system 102) may listen for and redistribute alarms and events data, process condition monitoring data and equipment condition monitoring data. Interfaces for this data are used to convert the data to a standard format or protocol, such as the Fieldbus or DeltaV protocol or to XML as desired (paragraph [0084]); and FIG. 12 is yet another exemplary depiction of a display that may be provided by a graphical user interface to enable a user to quickly investigate information within a plant (paragraph [0027]) wherein desired XML allows designers to create their own customized tags, enabling the definition, transmission, validation, and interpretation of data between applications and between organizations.

As per **claim 8**, Nixon et al. discloses "the server according to claim 1 wherein the server has a plurality of feedfiles, each containing data received and stored from the equipment and each having a different filename, whereby users can access different

feeds from the same address using the different file names, whereby a user can select information to be viewed by appropriate file name selection" as FIG. 10 is an exemplary depiction of a display that may be provided by a graphical user interface to enable a user to view audit trail information compiled from different data sources (paragraph [0025]); FIG. 13 is an exemplary depiction of a diagnostic display that may be provided by a graphical user interface that enables a user to analyze the performance and/or status of one or more process control loops or other process control entities using data collected from different data sources; and FIG. 14 is an exemplary depiction of a diagnostic display that may be provided by a graphical user interface that enables a user to analyze the performance and/or status of one or more process control loops or other process control entities (paragraphs [0028] – [0029]).

As per **claim 9**, Nixon et al. discloses "the server according to claim 8 comprising a tool to enable different feedfiles with different file names to be structured differently and/or to accept and deliver different data according to user requirements" as FIG. 12 is yet another exemplary depiction of a display that may be provided by the GUI to enable a user to quickly investigate alarm information, conditions, etc. within the plant 10. A high level graphical view 750 of the plant 10 may include an alarm banner 760 having one or more pending alarms. Each of the alarms within the alarm banner may be represented using an alphanumeric indicator that is uniquely associated with the device or other entity which generated the alarm or event. Additionally, each of the alarms within the banner 760 may also include an information button 770, which may be

selected by a user to generate a pop-up window 775 containing more detailed information relating to that particular alarm. Further, the user may also select the alphanumeric designator for the device causing a particular alarm to investigate the possible reasons for the alarm. When the alphanumeric designator is selected, a pop-up window 780 may be provided by the GUI. The pop-up window 780 may provide one or more response categories 785, which may facilitate the user's understanding of how a particular alarm should be addressed and within what time frame the alarm should be addressed. By way of example, the pop-up window 780 may indicate that a particular device is no longer communicating, that the device has failed, that the device needs maintenance immediately, or that the device requires maintenance or some other attention soon (paragraph [0140] lines 1-26).

As per **claim 10**, Nixon et al. discloses:

"a manufacturing plant comprising a plurality of devices, each having sensing means for sensing a parameter, and" as field devices 112, such as smart field devices, may provide still further data to the data collection and distribution system 102. Of course, the data provided by the field devices 112 may be any data measured by or generated by these field devices, including alarms, alerts, measurement data, calibration data, etc. Likewise, a corrosion monitoring data source 114 may provide data collected by or generated by corrosion monitoring services or applications to the collection system 102. Likewise, an alarming data source 116 may provide data collected by or generated by advanced alarming applications or services to the system

102. The alarming data source 116 may include applications or services which measure or take samples, perform lab analyses and generate alarms or other information based on these analyses (paragraph [0052]).

"a server in accordance with claim 1 connected to the sensing means for receiving and storing data from the sensing means and" as the data collection and distribution system 102 will collect the data from the different data sources in a common format or will convert that data, once received, to a common format for storage and use later by other elements, devices or applications in the process control system. In one embodiment, the different data sources may use a data conversion protocol, such as OPC, PI, Fieldbus, etc. to communicate the data to the data collection and distribution system 102. Of course, the OPC or other conversion interface may be stored in the data collection and distribution system 102 or in the data sources themselves. Further, if desired, any of the data sources may convert its data to a common format used by the data collection and distribution system 102 and communicate that converted data to the system 102. Of course, the data collection and distribution system 102 may convert the data sent by the different data sources to any common format or protocol and store and organize that data in a database in any desired manner. The data collection and distribution system 102 may receive the data from the different data sources in a periodic or aperiodic manner, continuously, or intermittently, synchronously or asynchronously, or at any desired time (paragraph [0054]) the data collection and distribution system referred as server including database storing data sent by the different data sources; and data sources referred as plurality of devices.

"delivering it via the feed to the remote applications" as once received and converted, the data is stored in a database in some accessible manner and is made available to applications or users within the asset management suite 50. For example, applications related to process control, alarming, device maintenance, fault diagnostics, predictive maintenance, financial planning, optimization, etc. may use, combine and integrate the data from one or more of the different data sources (paragraph [0055] lines 1- 8); and the computer 30 may also be connected via, for example, the bus 32, to a plantwide LAN 37, a corporate WAN 38 as well as to a computer system 40 that enables remote monitoring of or communication with the plant 10 from remote locations (paragraph [0039] lines 11- 15) wherein the computer 30 referred as a server; a computer system 40 referred as a remote application.

As per **claim 11**, Nixon et al. discloses "the manufacturing plant according to claim 9 wherein the parameters are selected from: flow parameters, temperature, pressure, alarms, status, chemical sensor parameters, time, vibration, noise and electrical parameters" as field devices 112, such as smart field devices, may provide still further data to the data collection and distribution system 102. Of course, the data provided by the field devices 112 may be any data measured by or generated by these field devices, including alarms, alerts, measurement data, calibration data, etc. Likewise, a corrosion monitoring data source 114 may provide data collected by or generated by corrosion monitoring services or applications to the collection system 102. Likewise, an alarming data source 116 may provide data collected by or generated by

advanced alarming applications or services to the system 102. The alarming data source 116 may include applications or services which measure or take samples, perform lab analyses and generate alarms or other information based on these analyses (paragraph [0052]); and of course the data collected may be any of, but is not limited to rotating equipment angular position, velocity, acceleration data (as well as transforms of this data to provide power spectral density, frequency amplitude, etc.), equipment stress data, strain data, wall thickness data, corrosion extent and rate of corrosion progress data, corrosivity of process fluids data, lubrication and wear data, bearing and seal data, leakage presence rate and composition of escaping liquids and gasses data including but not limited to data about volatile organic and inorganic compounds, bearing temperature data, acoustic transducer data, process physical and compositional measurement data, etc (paragraph [0057] lines 22-33).

As per **claim 17**, Nixon et al. discloses:

"a method of operation of a server connected to equipment to be monitored, where the server has an internet protocol address and" as it will be noted that, while FIG. 3 illustrates the process control, the equipment monitoring and diagnostic, and the performance monitoring applications as being separate from the suite of applications 50, these specific applications could be part of or used by the suite of integration applications 50 if so desired. Further, while FIG. 3 illustrates data associated with one embodiment of a plant 10, FIG. 3 is not meant to indicate physical locations of any of the applications within the suite of applications 50. Thus, any and all of the applications

and hardware illustrated in FIG. 3 can be located at any desired places within the plant (or even away from the plant 10 if so desired) and these applications need not be located in the same place. Still further, the flow of data between data collectors and the data collection and distribution system 102 as well as between the data collection and distribution system 102 and the applications illustrated in FIG. 3 may occur over any desired network, such as a LAN or WAN, the Internet, any Intranet, etc. Data may be transported in any desired manner using any desired hardware including, for example, any physical medium, any dedicated or shared information transport method including without limit the use of wired, wireless, coaxial cable, telephone modem, fiber optic, optical, meteor burst, satellite, etc. devices. This communication may also use any desired protocol including without limit, Fieldbus, XML, TCP/IP, IEEE 802.3, blue tooth, X.25, X.400, protocols or any other protocol now known or developed in the future (paragraph [0076]).

"a database for receiving and storing data from the equipment," as the data collection and distribution system 102 will collect the data from the different data sources in a common format or will convert that data, once received, to a common format for storage and use later by other elements, devices or applications in the process control system. In one embodiment, the different data sources may use a data conversion protocol, such as OPC, PI, Fieldbus, etc. to communicate the data to the data collection and distribution system 102. Of course, the OPC or other conversion interface may be stored in the data collection and distribution system 102 or in the data sources themselves. Further, if desired, any of the data sources may convert its data to

a common format used by the data collection and distribution system 102 and communicate that converted data to the system 102. Of course, the data collection and distribution system 102 may convert the data sent by the different data sources to any common format or protocol and store and organize that data in a database in any desired manner. The data collection and distribution system 102 may receive the data from the different data sources in a periodic or aperiodic manner, continuously, or intermittently, synchronously or asynchronously, or at any desired time (paragraph [0054]) the data collection and distribution system referred as server including database storing data sent by the different data sources; and data sources referred as equipments.

"the method comprising generating a feedfile containing reports of parameters being monitored in the equipment and" as if the data collection and distribution system is located in the computer 30, it may receive data from the disparate sources of data, such as the controllers, equipment monitoring and financial applications separately using different data formats, or using a common format. In one embodiment, the communications over the bus 32 occur using the XML protocol. Here, data from each of the computers 12A, 18, 14A, 22, 26, 35, 36, etc. is wrapped in an XML wrapper and is sent to an XML data server which may be located in, for example, the computer 30. Because XML is a descriptive language, the server can process any type of data. At the server, if necessary, the data is encapsulated and mapped to a new XML wrapper, i.e., this data is mapped from one XML schema to one or more other XML schemas which

are created for each of the receiving applications (paragraph [0040] lines 7-21) wherein the XML wrapper referred as a feedfile.

"storing the feedfile on the server in a manner such that it can be read by a remote application addressing the server" as once received and converted, the data is stored in a database in some accessible manner and is made available to applications or users within the asset management suite 50. For example, applications related to process control, alarming, device maintenance, fault diagnostics, predictive maintenance, financial planning, optimization, etc. may use, combine and integrate the data from one or more of the different data sources (paragraph [0055] lines 1- 8); and the computer 30 may also be connected via, for example, the bus 32, to a plantwide LAN 37, a corporate WAN 38 as well as to a computer system 40 that enables remote monitoring of or communication with the plant 10 from remote locations (paragraph [0039] lines 11- 15) wherein the computer 30 referred as a server; a computer system 40 referred as a remote application; and a plant 10 referred as an equipment.

As per **claim 18**, Nixon et al. discloses:

"a computer program product comprising instructions and data which, when loaded onto a server having an internet protocol address and" as it will be noted that, while FIG. 3 illustrates the process control, the equipment monitoring and diagnostic, and the performance monitoring applications as being separate from the suite of applications 50, these specific applications could be part of or used by the suite of integration applications 50 if so desired. Further, while FIG. 3 illustrates data associated

with one embodiment of a plant 10, FIG. 3 is not meant to indicate physical locations of any of the applications within the suite of applications 50. Thus, any and all of the applications and hardware illustrated in FIG. 3 can be located at any desired places within the plant (or even away from the plant 10 if so desired) and these applications need not be located in the same place. Still further, the flow of data between data collectors and the data collection and distribution system 102 as well as between the data collection and distribution system 102 and the applications illustrated in FIG. 3 may occur over any desired network, such as a LAN or WAN, the Internet, any Intranet, etc. Data may be transported in any desired manner using any desired hardware including, for example, any physical medium, any dedicated or shared information transport method including without limit the use of wired, wireless, coaxial cable, telephone modem, fiber optic, optical, meteor burst, satellite, etc. devices. This communication may also use any desired protocol including without limit, Fieldbus, XML, TCP/IP, IEEE 802.3, blue tooth, X.25, X.400, protocols or any other protocol now known or developed in the future (paragraph [0076]).

"a database for receiving and storing data from equipment being monitored," as the data collection and distribution system 102 will collect the data from the different data sources in a common format or will convert that data, once received, to a common format for storage and use later by other elements, devices or applications in the process control system. In one embodiment, the different data sources may use a data conversion protocol, such as OPC, PI, Fieldbus, etc. to communicate the data to the data collection and distribution system 102. Of course, the OPC or other conversion

interface may be stored in the data collection and distribution system 102 or in the data sources themselves. Further, if desired, any of the data sources may convert its data to a common format used by the data collection and distribution system 102 and communicate that converted data to the system 102. Of course, the data collection and distribution system 102 may convert the data sent by the different data sources to any common format or protocol and store and organize that data in a database in any desired manner. The data collection and distribution system 102 may receive the data from the different data sources in a periodic or aperiodic manner, continuously, or intermittently, synchronously or asynchronously, or at any desired time (paragraph [0054]) the data collection and distribution system referred as server including database storing data sent by the different data sources; and data sources referred as equipments.

"cause the server to generate a feedfile containing reports of parameters being monitored in the equipment and" as if the data collection and distribution system is located in the computer 30, it may receive data from the disparate sources of data, such as the controllers, equipment monitoring and financial applications separately using different data formats, or using a common format. In one embodiment, the communications over the bus 32 occur using the XML protocol. Here, data from each of the computers 12A, 18, 14A, 22, 26, 35, 36, etc. is wrapped in an XML wrapper and is sent to an XML data server which may be located in, for example, the computer 30. Because XML is a descriptive language, the server can process any type of data. At the server, if necessary, the data is encapsulated and mapped to a new XML wrapper, i.e.,

this data is mapped from one XML schema to one or more other XML schemas which are created for each of the receiving applications (paragraph [0040] lines 7-21) wherein the XML wrapper referred as a feedfile.

"to store the feedfile in a manner such that it can be read by a remote application addressing the server" as once received and converted, the data is stored in a database in some accessible manner and is made available to applications or users within the asset management suite 50. For example, applications related to process control, alarming, device maintenance, fault diagnostics, predictive maintenance, financial planning, optimization, etc. may use, combine and integrate the data from one or more of the different data sources (paragraph [0055] lines 1- 8); and the computer 30 may also be connected via, for example, the bus 32, to a plantwide LAN 37, a corporate WAN 38 as well as to a computer system 40 that enables remote monitoring of or communication with the plant 10 from remote locations (paragraph [0039] lines 11- 15) wherein the computer 30 referred as a server; a computer system 40 referred as a remote application; and a plant 10 referred as an equipment.

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

12. **Claims 12-16, 19 and 20** are rejected under 35 U.S.C. 103(a) as being unpatentable over Nixon et al. view of Hosoe (US Pat No. 6,047,376 A).

As per **claim 12**, Nixon et al. discloses:

"a computer for remote monitoring of equipment, the computer having a network connection for connecting to a server connected to equipment to be monitored and" as it will be noted that, while FIG. 3 illustrates the process control, the equipment monitoring and diagnostic, and the performance monitoring applications as being separate from the suite of applications 50, these specific applications could be part of or used by the suite of integration applications 50 if so desired. Further, while FIG. 3 illustrates data associated with one embodiment of a plant 10, FIG. 3 is not meant to indicate physical locations of any of the applications within the suite of applications 50. Thus, any and all of the applications and hardware illustrated in FIG. 3 can be located at any desired places within the plant (or even away from the plant 10 if so desired) and these applications need not be located in the same place. Still further, the flow of data between data collectors and the data collection and distribution system 102 as well as between the data collection and distribution system 102 and the applications illustrated in FIG. 3 may occur over any desired network, such as a LAN or WAN, the Internet, any Intranet, etc. Data may be transported in any desired manner using any desired hardware including, for example, any physical medium, any dedicated or shared information transport method including without limit the use of wired, wireless, coaxial cable, telephone modem, fiber optic, optical, meteor burst, satellite, etc. devices. This

communication may also use any desired protocol including without limit, Fieldbus, XML, TCP/IP, IEEE 802.3, blue tooth, X.25, X.400, protocols or any other protocol now known or developed in the future (paragraph [0076]).

"having a news display application for displaying items fed to the computer by a news feed," and "as its source of items to be displayed and" as see FIGS. 9-15.

"has means for performing a look-up of items from the server at regular read intervals" as the data collection and distribution system 102 will collect the data from the different data sources in a common format or will convert that data, once received, to a common format for storage and use later by other elements, devices or applications in the process control system. In one embodiment, the different data sources may use a data conversion protocol, such as OPC, PI, Fieldbus, etc. to communicate the data to the data collection and distribution system 102. Of course, the OPC or other conversion interface may be stored in the data collection and distribution system 102 or in the data sources themselves. Further, if desired, any of the data sources may convert its data to a common format used by the data collection and distribution system 102 and communicate that converted data to the system 102. Of course, the data collection and distribution system 102 may convert the data sent by the different data sources to any common format or protocol and store and organize that data in a database in any desired manner. The data collection and distribution system 102 may receive the data from the different data sources in a periodic or aperiodic manner, continuously, or intermittently, synchronously or asynchronously, or at any desired time (paragraph [0054]) the data collection and distribution system referred as server including database

storing data sent by the different data sources; and data sources referred as equipments.

Nixon et al. does not explicitly disclose "the news display application stores an address of the server". However, Hosoe discloses as it is necessary to authenticate each access by permitting or refusing it when a client makes an access to a server in a client-server system in which clients and servers are interconnected via a network. The client utilizes memory medium which stores both the server address and the memory medium's identification information. The client also uses a read-out device to fetch the contents of the memory medium and uses thus read out server address, to be connected to a desired server and then transmits the abovementioned read out identification information to ask for server access permission (see e.g., Abstract, lines 1-11).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply Hosoe teaching of server access authentication into Nixon et al. system in order to provide a server-client system and a server access authentication method whereby the user can easily obtain his legal server access and, at the same time, an illegal server access by others can be prevented (Hosoe, col. 1 lines 36-40).

As per **claim 13**, Nixon et al. discloses "the computer according to claim 12 wherein the read intervals are settable by a user of the computer" as FIG. 15 comprising

the scheduling information having start time and completion time referred as time intervals setting by a user.

As per **claim 14**, Nixon et al. discloses "the computer according to claim 12 further comprising a filter for filtering data received from the server and means, in the news display application, for selecting portions of all data received from the server for display" as FIGS. 13 and 14 depict further displays which may be produced by the GUI to provide additional information related to control performance, control utilization, device health or process performance. In particular, referring to FIG. 13, the left-hand side shows a tree structure having hierarchical information about the process control plant, including a DeltaV system (which is a controller system), an "Area A," a "ProPlus" area as well as additional higher level elements within the process control plant. Selecting some of these elements such as DeltaV system will provide further information related to the devices or control systems or other performance characteristics of the selected element. On the right-hand side of FIG. 13, an expert engine has collected and displayed information regarding diagnostics of the selected DeltaV system including the number of modules (in this case 42) which are within the incorrect mode, the number of modules which have exhibited limited control, the number of modules having had input/output problems and the number of modules having large variability. Again, the data used to create this screen may come from external data sources through the data collection and distribution system described herein. Still further, control performance, control utilization, device health and process

performance measures developed from one or more of the control data, device data and performance data are illustrated at the bottom of the display of FIG. 12 (paragraph [0141]).

As per **claim 15**, Nixon et al. discloses "the computer according to claim 12 wherein the news display application operates to cause sequential items to be displayed while the computer is active without separate selection by the user" as FIG. 10 is an exemplary depiction of a display that may be provided by the GUI to enable a user to view audit trail information in connection with any device used within the area 600. By way of example, a user may use a mouse to click on a given device or its alphanumeric identifier or, alternatively, may enter the identifier via a keyboard, to request a pop-up audit trail window 650 for that device. In this manner, a user can use the audit trail information to determine whether an improper or unacceptable index value may be related to a failure to calibrate the device properly or in a timely manner, whether a device has been configured properly or at all, etc (paragraph [0138]).

As per **claim 16**, Nixon et al. discloses "the equipment monitoring system comprising a server according to claim 1 and a computer according to claim 12 connected to the server via an intranet or the Internet" as it will be noted that, while FIG. 3 illustrates the process control, the equipment monitoring and diagnostic, and the performance monitoring applications as being separate from the suite of applications 50, these specific applications could be part of or used by the suite of integration

applications 50 if so desired. Further, while FIG. 3 illustrates data associated with one embodiment of a plant 10, FIG. 3 is not meant to indicate physical locations of any of the applications within the suite of applications 50. Thus, any and all of the applications and hardware illustrated in FIG. 3 can be located at any desired places within the plant (or even away from the plant 10 if so desired) and these applications need not be located in the same place. Still further, the flow of data between data collectors and the data collection and distribution system 102 as well as between the data collection and distribution system 102 and the applications illustrated in FIG. 3 may occur over any desired network, such as a LAN or WAN, the Internet, any Intranet, etc. Data may be transported in any desired manner using any desired hardware including, for example, any physical medium, any dedicated or shared information transport method including without limit the use of wired, wireless, coaxial cable, telephone modem, fiber optic, optical, meteor burst, satellite, etc. devices. This communication may also use any desired protocol including without limit, Fieldbus, XML, TCP/IP, IEEE 802.3, blue tooth, X.25, X.400, protocols or any other protocol now known or developed in the future (paragraph [0076]) wherein the data collection and distribution system 102 referred as a server and data collector or application referred as a computer.

As per **claim 19**, Nixon et al. discloses:

"a method of operation of a computer for remote monitoring of equipment, comprising providing a network connection for connecting to a server connected to the equipment to be monitored," as it will be noted that, while FIG. 3 illustrates the process

control, the equipment monitoring and diagnostic, and the performance monitoring applications as being separate from the suite of applications 50, these specific applications could be part of or used by the suite of integration applications 50 if so desired. Further, while FIG. 3 illustrates data associated with one embodiment of a plant 10, FIG. 3 is not meant to indicate physical locations of any of the applications within the suite of applications 50. Thus, any and all of the applications and hardware illustrated in FIG. 3 can be located at any desired places within the plant (or even away from the plant 10 if so desired) and these applications need not be located in the same place. Still further, the flow of data between data collectors and the data collection and distribution system 102 as well as between the data collection and distribution system 102 and the applications illustrated in FIG. 3 may occur over any desired network, such as a LAN or WAN, the Internet, any Intranet, etc. Data may be transported in any desired manner using any desired hardware including, for example, any physical medium, any dedicated or shared information transport method including without limit the use of wired, wireless, coaxial cable, telephone modem, fiber optic, optical, meteor burst, satellite, etc. devices. This communication may also use any desired protocol including without limit, Fieldbus, XML, TCP/IP, IEEE 802.3, blue tooth, X.25, X.400, protocols or any other protocol now known or developed in the future (paragraph [0076]).

"providing a news display application for displaying items fed to the computer by a news feed," and "as its source of items to be displayed and" see FIGS. 9-15.

"performing a look-up of items from the server at regular read intervals" as the data collection and distribution system 102 will collect the data from the different data sources in a common format or will convert that data, once received, to a common format for storage and use later by other elements, devices or applications in the process control system. In one embodiment, the different data sources may use a data conversion protocol, such as OPC, PI, Fieldbus, etc. to communicate the data to the data collection and distribution system 102. Of course, the OPC or other conversion interface may be stored in the data collection and distribution system 102 or in the data sources themselves. Further, if desired, any of the data sources may convert its data to a common format used by the data collection and distribution system 102 and communicate that converted data to the system 102. Of course, the data collection and distribution system 102 may convert the data sent by the different data sources to any common format or protocol and store and organize that data in a database in any desired manner. The data collection and distribution system 102 may receive the data from the different data sources in a periodic or aperiodic manner, continuously, or intermittently, synchronously or asynchronously, or at any desired time (paragraph [0054]) the data collection and distribution system referred as server including database storing data sent by the different data sources; and data sources referred as equipments.

Nixon et al. does not explicitly disclose "storing, in association with the news display application, an address of the server". However, Hosoe discloses as it is necessary to authenticate each access by permitting or refusing it when a client makes

an access to a server in a client-server system in which clients and servers are interconnected via a network. The client utilizes memory medium which stores both the server address and the memory medium's identification information. The client also uses a read-out device to fetch the contents of the memory medium and uses thus read out server address, to be connected to a desired server and then transmits the abovementioned read out identification information to ask for server access permission (see e.g., Abstract, lines 1-11).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply Hosoe teaching of server access authentication into Nixon et al. system in order to provide a server-client system and a server access authentication method whereby the user can easily obtain his legal server access and, at the same time, an illegal server access by others can be prevented (Hosoe, col. 1 lines 36-40).

As per **claim 20**, Nixon et al. discloses:

"a computer program product comprising instructions and data which, when loaded onto a computer having a network connection for connecting to a server connected to equipment to be monitored," as it will be noted that, while FIG. 3 illustrates the process control, the equipment monitoring and diagnostic, and the performance monitoring applications as being separate from the suite of applications 50, these specific applications could be part of or used by the suite of integration applications 50 if so desired. Further, while FIG. 3 illustrates data associated with one embodiment of a

plant 10, FIG. 3 is not meant to indicate physical locations of any of the applications within the suite of applications 50. Thus, any and all of the applications and hardware illustrated in FIG. 3 can be located at any desired places within the plant (or even away from the plant 10 if so desired) and these applications need not be located in the same place. Still further, the flow of data between data collectors and the data collection and distribution system 102 as well as between the data collection and distribution system 102 and the applications illustrated in FIG. 3 may occur over any desired network, such as a LAN or WAN, the Internet, any Intranet, etc. Data may be transported in any desired manner using any desired hardware including, for example, any physical medium, any dedicated or shared information transport method including without limit the use of wired, wireless, coaxial cable, telephone modem, fiber optic, optical, meteor burst, satellite, etc. devices. This communication may also use any desired protocol including without limit, Fieldbus, XML, TCP/IP, IEEE 802.3, blue tooth, X.25, X.400, protocols or any other protocol now known or developed in the future (paragraph [0076]) "cause the computer to:"

"execute a news display application;" see FIGS. 9-15.

"perform a feedfile look-up from the server at regular read intervals; and" as the data collection and distribution system 102 will collect the data from the different data sources in a common format or will convert that data, once received, to a common format for storage and use later by other elements, devices or applications in the process control system. In one embodiment, the different data sources may use a data conversion protocol, such as OPC, PI, Fieldbus, etc. to communicate the data to the

data collection and distribution system 102. Of course, the OPC or other conversion interface may be stored in the data collection and distribution system 102 or in the data sources themselves. Further, if desired, any of the data sources may convert its data to a common format used by the data collection and distribution system 102 and communicate that converted data to the system 102. Of course, the data collection and distribution system 102 may convert the data sent by the different data sources to any common format or protocol and store and organize that data in a database in any desired manner. The data collection and distribution system 102 may receive the data from the different data sources in a periodic or aperiodic manner, continuously, or intermittently, synchronously or asynchronously, or at any desired time (paragraph [0054]) the data collection and distribution system referred as server including database storing data sent by the different data sources; and data sources referred as equipments; and if the data collection and distribution system is located in the computer 30, it may receive data from the disparate sources of data, such as the controllers, equipment monitoring and financial applications separately using different data formats, or using a common format. In one embodiment, the communications over the bus 32 occur using the XML protocol. Here, data from each of the computers 12A, 18, 14A, 22, 26, 35, 36, etc. is wrapped in an XML wrapper and is sent to an XML data server which may be located in, for example, the computer 30. Because XML is a descriptive language, the server can process any type of data. At the server, if necessary, the data is encapsulated and mapped to a new XML wrapper, i.e., this data is mapped from one XML schema to one or more other XML schemas which are created for each of the

receiving applications (paragraph [0040] lines 7-21) wherein the XML wrapper referred as a feedfile.

"display items fed to the computer by the news display application in combination with the feedfile" see FIGS. 9-15.

Nixon et al. does not explicitly disclose "uniquely address a feedfile located at an address identifying the server". However, Hosoe discloses as it is necessary to authenticate each access by permitting or refusing it when a client makes an access to a server in a client-server system in which clients and servers are interconnected via a network. The client utilizes memory medium which stores both the server address and the memory medium's identification information. The client also uses a read-out device to fetch the contents of the memory medium and uses thus read out server address, to be connected to a desired server and then transmits the abovementioned read out identification information to ask for server access permission (see e.g., Abstract, lines 1-11).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply Hosoe teaching of server access authentication into Nixon et al. system in order to provide a server-client system and a server access authentication method whereby the user can easily obtain his legal server access and, at the same time, an illegal server access by others can be prevented (Hosoe, col. 1 lines 36-40).

Conclusion

13. The following prior art made of record on form PTO-892 and not relied upon is cited to establish the level of skill in the applicant's art and those arts considered reasonably pertinent to applicant's disclosure. See **MPEP 707.059(c)**.

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14. The examiner requests, in response to this Office Action, support is shown for language added to any original claims on amendment and any new claims. That is, indicate support for newly added claim language by specifically pointing to page(s) and line number(s) in the specification and/or drawing figure(s). This will assist the examiner in prosecuting the application.

15. When responding to this Office Action, applicant is advised to clearly point out the patentable novelty which he or she thinks the claims present, in view of the state of the art disclosed by the references cited or the objections made. He or she must also show how the amendments avoid such references or objections See 37 CFR 1.111(c).

Contact Information

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bai D. Vu whose telephone number is 571-270-1751. The examiner can normally be reached on Mon - Fri 7:30 - 5:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christian Chace can be reached on 571-272-4190. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Bai Vu

12/19/2007

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